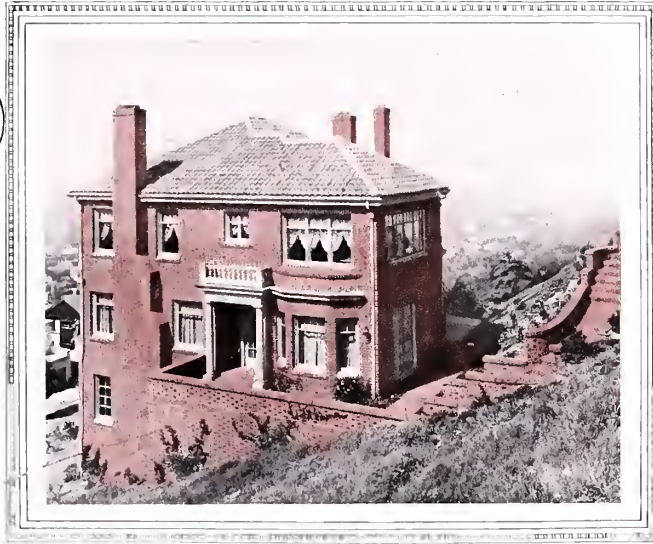


BUILDING WITH BRICK AND HOLLOW TILE



PORTCO CLAY PRODUCTS



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BUILDING WITH BRICK *and* HOLLOW TILE

*Some information of interest
and value to the prospective
builder and an*

ILLUSTRATED CATALOG of Portco Clay Products

COMMON BRICK
HOLLOW TILE
UNIVERSAL UNIT TILE
BROOKS FACED TILE



Manufactured by

The Port Costa Brick Works

Port Costa, California

Main Office: 808 Sharon Building
SAN FRANCISCO, CALIF.

SUPPLY { 411 Berry Street, San Francisco, Cal.
DEPOTS { 3435 Wood Street, Oakland, Cal.

The Purpose of this Book

FOR those who have the slightest interest in Brick or Hollow Tile building construction, this book gives, briefly but clearly, authoritative information that will invariably prove valuable.

Herein is recorded the interesting story of brick—the time-tested building material which, with its modern adaptations, has continuously grown in favor since man first used it thousands of years before the beginning of the Christian era.

And not only is the reader made more familiar with the present enviable standing and facilities of The Port Costa Brick Works but the full line of Portco Clay Products is completely described and illustrated.

Portco Clay Products have won the unqualified approval of discriminating architects, builders and building owners ever since they were first manufactured more than a quarter of a century ago.

C. G. BERG

President

The Port Costa Brick Works.

Building with Brick and Hollow Tile

Common Brick: A Brief History

THERE is probably nothing in widespread use to-day on which time has placed the seal of its approval to such an extent as on common brick. Continuously playing an important part in the growth of civilization, the historian finds the first record of its manufacture and use in building in 3800 B. C. during the time of the ancient Chaldean empire. There is no knowing how long before this date the dwellers along the ancient rivers such as the Tigris and Euphrates learned to utilize the sun-baked clay at the water's edge.

When man first learned to burn brick and so turn it into a substance as hard and more durable than granite we do not know. Brick of this nature was used at the time the Tower of Babel was built and later, during the reign of the great Babylonian king Nebuchadnezzar (550 B. C.), the art of making hard-burned brick had not only been acquired but they were being beautifully enamelled. This art of coloring brick was highly prized and received royal patronage.

The ancient Assyrians, Egyptians, Greeks and Romans all made wide use of the convenience and durability of brick in building. Brick is durable. A few miles south of Cairo, in Egypt, there are still standing two brick pyramids that were constructed in the fifteenth or sixteenth centuries B. C. Many beautiful examples of ancient Babylonian colored brickwork still exist in various museums.

From the Romans, Europe learned the art of making brick and wherever suitable clay was abundant, extensive building in brick was continually carried on. The Moors in Spain proved themselves to be masters of the art. In 1509 brick-making became highly perfected in England and when London was destroyed by fire in 1666, brick buildings replaced the former wooden structures. Everyone who has travelled in England remembers the splendid examples of brick architecture so well represented by the comfort and dignity of fine old country houses.

Here on the American continent, the Spaniards used adobe brickwork in Peru and Mexico. The first brick houses in America were built of material brought from Holland and England. As early as 1611 the brick industry was established in Virginia and from that date to the present, a fuller appreciation of the artistic possibilities of brick has resulted in a steadily growing vogue so that to-day our leading architects are using to excellent advantage a wide variety of beautiful color tones and textures in the time-honored brick wall. This book illustrates a few examples of the character and artistic appeal which modern brick construction makes possible.

NATURE'S BEST MATERIAL MADE BETTER

While Nature has put clay to severe trials in the formation of the earth, man subjects it to further vicissitudes in the form of intense heat which transforms it into a substance of which Sir Charles Lyell in his "Antiquity of Man" says:

[Page three



C. C. Dakin, Architect

Kappa Sigma Fraternity House, Berkeley, California

Joe Devillers, Mason Contractor

"Granite disintegrates and crumbles into mica, quartz and feldspar (the base of clay); marble soon moulders into dust of carbonate of lime; but hard, well-burnt clay endures forever in the ancient landmarks of mankind."

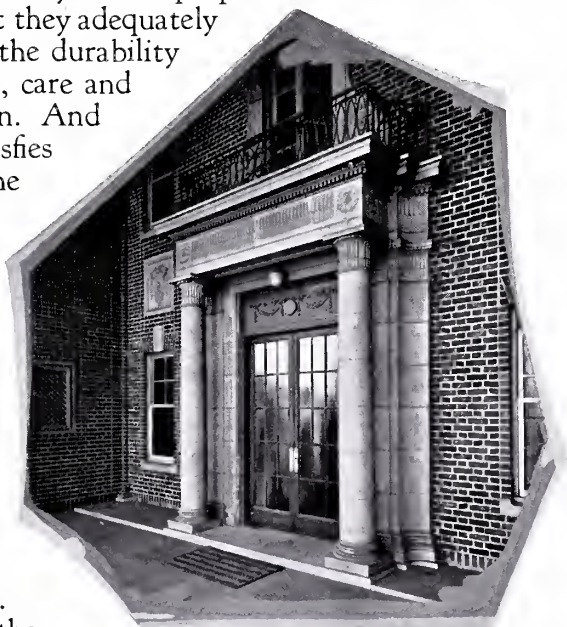
It is a long step from the early primitive methods of hand manufacture and sun-baking to the present highly technical methods such as are employed at the modern plant of The Port Costa Brick Works. The skilled handling of an extraordinarily high grade deposit of shale and the application of various heat treatments produces at this plant not only an endless variety of exquisite shadings and colors but a surprising degree of durability. When you select a fine brick you not only get a product which Nature has taken ages to mature but one which the best scientific knowledge of man has improved.

America leads the world in the production of bricks that provide a wide range of artistic color schemes. No longer is it necessary to live in buildings of dull, unattractive appearance. The durability of brick is available in a veritable symphony of color and in a variety of pleasing textures.

THE BASIC REQUIREMENTS IN BUILDING

In the planning of every building there are three basic requirements which must never be overlooked. First there is utility or the proper arrangement of the inner parts so that they adequately suit their purpose. Second, there is the durability that justifies the investment of time, care and money involved in all construction. And third, there is the beauty which satisfies the sense of artistic attractiveness. The first requirement depends on the skill with which the building has been planned. The second and third requirements depend largely, if not almost entirely, on the materials selected.

Now we begin to understand why brick is being so widely specified. For structural reasons—strength and durability—and for artistic reasons—beauty and charm of appearance—brick is not surpassed by any other building material. The history of architecture proves the structural and artistic success that has been obtained in constructing monumental buildings of brick.

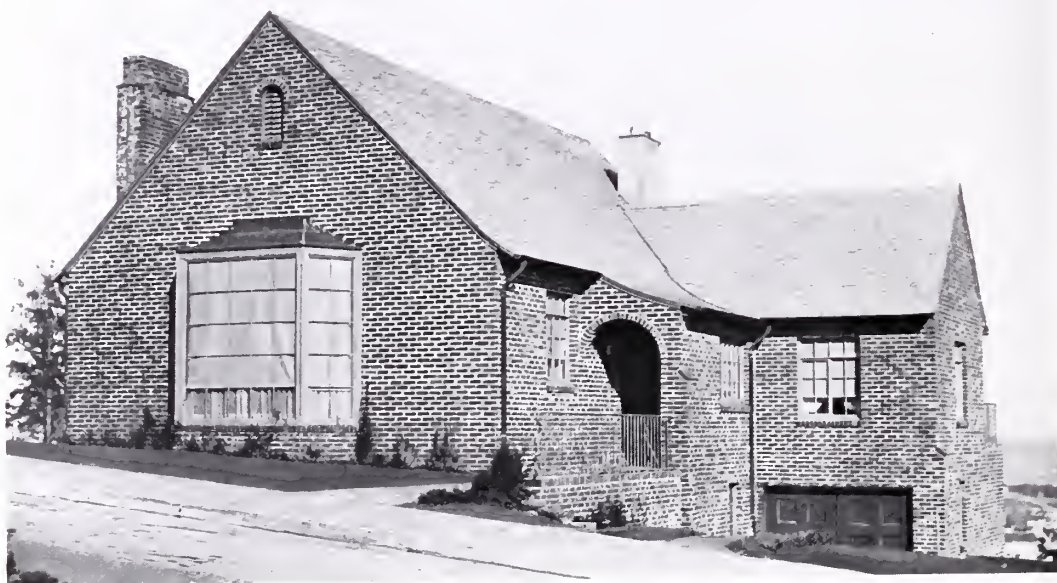


*Main Entrance—Hebrew Home and Hospital
for Aged Disabled*

*Samuel Lightner Hyman, Architect
Reed & Reed, Mason Contractors*



Hebrew Home and Hospital for Aged Disabled, San Francisco, California
Samuel Lightner Hyman, Architect *Reed & Reed, Mason Contractors*



Residence of Harold N. Larsen, Monterey Heights, San Francisco, California
Thomas J. Kent, Architect *Harold N. Larsen, Mason Contractor*

No other material is so versatile in its ability to portray individuality. In the palace of the king and in the cottage of the peasant, brick is being adapted to express the character desired. It pays to use brick, if only because it gives the greatest degree of individual satisfaction.

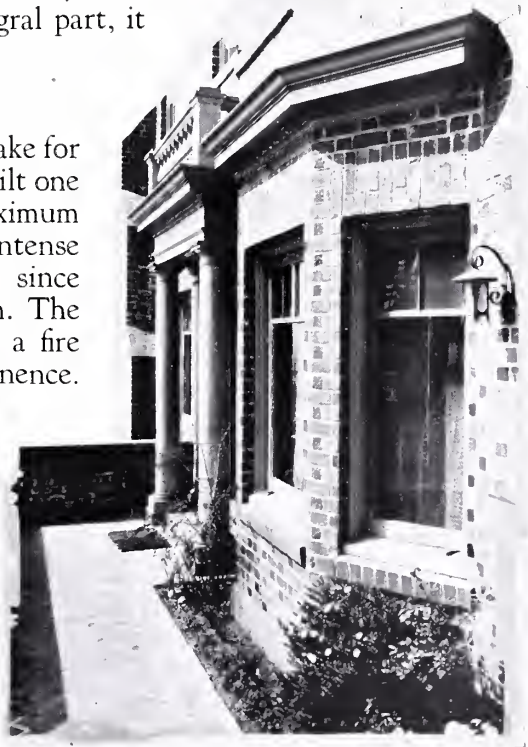
Few people realize that brick is useful in both interiors as well as exteriors, yet large quantities of brick are used in an endless variety of ways in charmingly decorative interior finishes. In churches, public buildings, great hallways, or in residences wherever it is desired to combine permanence with light, cheerful, decorative effects, some of the many brick finishes and wall patterns are being used with excellent effect. Every home should have a beautiful brick fireplace. Then too, there are an endless number of supplementary uses for brick in beautifying house surroundings, garden walls, gateways and walks, steps and porches. All are greatly enhanced in appearance and in permanence by the use of a well-selected brick.

When we consider the endless variety of color schemes, pattern combinations and colors of mortar joints we realize that, as we have already said, brick can satisfy the most diverse, artistic taste. Since the color of brick is an integral part, it can not fade.

BRICK IS FIREPROOF

The size and shape of brick not only make for pleasing appearance but since they are built one by one into a solid wall they provide maximum strength. Hardened and matured by intense heat they are an everlasting material, since neither fire nor weather can affect them. The upright brick walls and chimneys after a fire stand as mute witnesses of their permanence. Since practically all other building materials that are untested by fire in their preparation will crack or disintegrate—even iron and steel will melt—brick may be considered as the one strictly fireproof building material.

Every building has some combustible material, but by wise selection of these materials, the fire risk can be reduced to a minimum with the consequent saving in insurance premiums. Every brick you put into your building adds just so much to its fire-safety.



Residence of Emil E. Gloor, Berkeley, California
Willis C. Lowe, Architect *Emil E. Gloor, Mason Contractor*



Willis C. Lowe, Architect

Residence of Emil E. Gloor, Berkeley, California

Emil E. Gloor, Mason Contractor

THE ECONOMY OF BUILDING WITH BRICK

Many people who have never looked into the matter have the erroneous idea that a brick building, however desirable it might be, is costly. True, the first cost of a brick building is a little more than that of a frail wood or stucco structure. It costs such a little more though, and is worth such a great deal more, from so many different points of view that, in the end, brick is far more economical. When we give full consideration to such important factors as reduced upkeep expense, reduced depreciation, fire-safety and lower insurance rates and comfort with resulting advantages to health, we quickly see that there is no doubt about the economy of brick construction, even if we discount the permanent satisfaction it always provides.

Since the brick house only requires painting on exposed woodwork in doors, windows and outside trim, you can estimate the substantial saving over the paint-

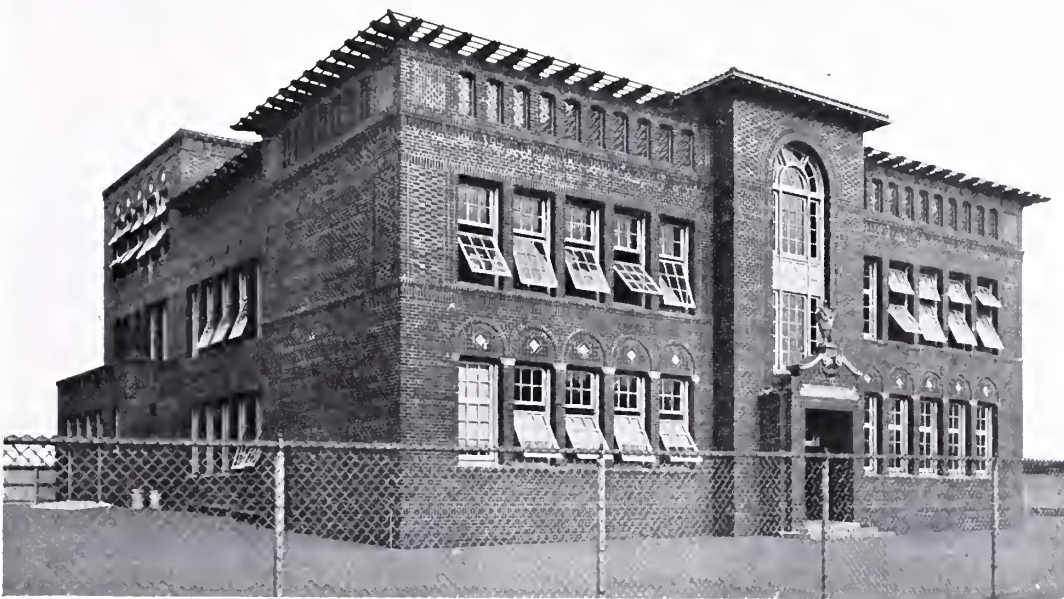
ing of even a moderate sized frame house, which would run to at least \$250. Added to this are the various repairs required by the cracking and decaying of other building materials.

Depreciation, a separate item from up-keep, has been appraised at one percent a year, beginning after the first five years. Contrast this with a frame house which depreciates from the day it is finished at the rate of two or three percent annually.

BRICK CONSTRUCTION INSURES COMFORT AND HEALTH

Wind and cold are the two influences that interfere most with comfort and health in every building. The brick house affords maximum protection, because brick is such a poor conductor of both cold and heat, that the brick building is cool in summer and warm in winter. As a saver of fuel alone the brick building deserves full consideration.

When the whole matter is summed up we find that from every point of view—strength, durability, appearance and economy—no other building material can make such meritorious claims for its use in the construction of any permanent building. There is no substitute for brick.



John Reid, Jr., Architect

Harrison Street School, San Francisco

Emil Hogberg, Mason Contractor

A word about the Port Costa Brick Works

IN selecting brick one is almost entirely dependent on the facilities and reputation of the plant where it is manufactured. It would be difficult to find a brick works more ideally suited to the production of high-grade brick than the Port Costa Brick Works.

Its modern plant at Port Costa, California, is ideally located with regard to the territory it serves—Northern California and Oregon. Situated at tidewater on Suisun Bay, all bay points are served economically by barge, while direct rail facilities help tend to minimize freight expense.

Founded more than a quarter of a century ago, The Port Costa Brick Works has enjoyed a steadily increasing business. Portco Products have achieved an enviable reputation. This steady growth and prestige is the natural result of the policy of high quality combined with interested service to all brick users, inaugurated when the first batch left the kiln.

The following pages give a detailed, illustrated description of the complete line of Portco Clay Products.

No brick can be any better than the material from which it is manufactured. The outstanding feature of Portco Brick is the exceptional quality of the material from which it is made. At Port Costa, California, there is a unique deposit of shale that has been the envy of brick manufacturers ever since it was discovered.

The special advantage of this shale lies in the fact that it burns into the most beautiful rich shades of color that build up into delightful wall surfaces. All over the territory served by this plant, Port Costa Brick is in demand because architects and experienced builders realize that it is not possible to obtain brick with a better color—and, everything else being equal, richness of color is of prime importance.

Combined with the outstanding color richness of Portco Brick, there is the further advantage of Portco care in handling and delivery. This high degree of carefulness means that every shipment of Portco Brick can be depended on to have the least possible loss due to breakage.

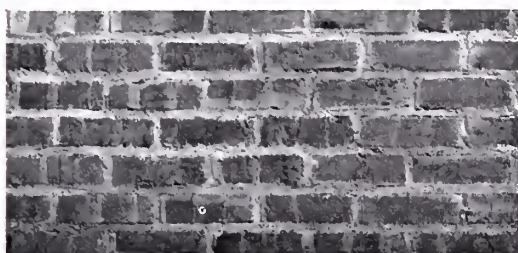
At every stage of manufacture Portco Brick is subjected to rigid standards of inspection so that every brick that leaves the modern Hoffman continuous kiln is as near perfect as it is humanly possible to make it. Then, too, users of Portco Brick have the benefit of the Portco high standard of service and co-operation which means that when you select Portco Brick you secure the full benefit of the resources of the Portco organization. You are helped, in every way, to secure the fullest possible measure of permanent satisfaction from all the Portco Brick that you use.

Portco Common Brick

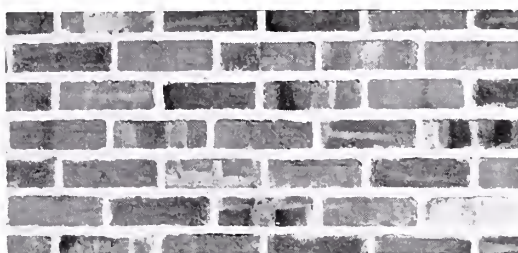
THE selection of Portco Common Brick ensures a wide variety of supremely attractive brick wall surface-tone combinations. Added to this advantage is the fact that the natural richness of all Portco Brick may be enhanced and still further varied by the judicious selection of harmonious mortar color for the joints.

Portco Common Brick is manufactured in five different types: Red Brick (Common), Select Brick (Common), Blue Brick, Black Headers, and Klinker Brick. Each of these five types is of the same high quality—Portco quality—and subjected to the same high standards of workmanship and the same rigid inspections.

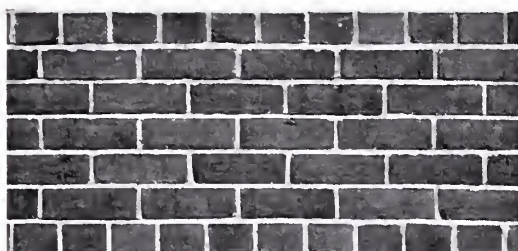
The six panels illustrated below give some indication of the wide variety of combinations that are possible with the four different types of Portco Common Brick.



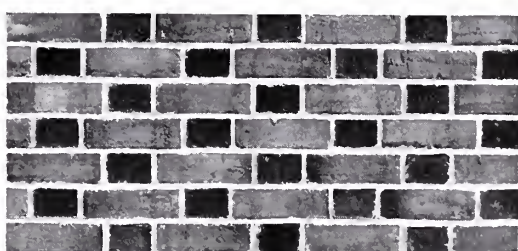
Portco Standard Common Brick



Portco Select Common Brick, Mingled Shades



Portco Select Red Common Brick



Portco Select Common Reds and Black Headers



Portco Blue Brick



Portco Klinker Brick

LARSEN & LARSEN

CONTRACTORS
1106-1107 HEARST BUILDING
PHONE KEARNY 2457
SAN FRANCISCO, CALIF.

San Francisco, Calif.
November 19, 1925.

SUBJECT: Compression Test - 4 brick cubes
Taken from new Sacramento Station Building

MR. GEO. W. BOSCHKE:

Herewith, results of compression test on 3 brick cubes : Cubes marked "A", "B" and "C" having been made from bricks used in the new Southern Pacific Station Building at Sacramento.

COMPRESSION TEST BRICK CUBES

Mark of Cubes	: "A" wet	: "B" med. wet	: "C" dry
Dimensions	: 8x8	: 8x8	: 8x8
Area per sq. in.	: 64	: 64	: 64
Actual load	: 20068	: 19717	: 15834
Lbs. per Sq. In.	: 3136	: 3081	: 2470

Port Costa Brick Works,
San Francisco, Calif.

B. STANKOVICH,
Cement Tester,
Southern Pacific Co.

Att'n. Mr. Berg:

This is a result of the test of the Common
Brick you furnished us for the new Southern Pacific
Passenger Depot, Sacramento, California.

LARSEN AND LARSEN.

Recent tests at the Columbia University show that a one, one, six mortar mix gives a crushing strength of at least 3100 pounds to the square inch

Brick Bonds

Bonding of brickwork is a very important item to be considered in securing a durable wall that will withstand both in compression and tension.

The two fundamental bonds are Flemish Bond and English Bond, of which practically all other bonds are simply variations.

FLEMISH BOND consists of alternate stretchers and headers in each course, with headers centering over the stretcher in the course below.

English Bond consists of alternating courses of headers and courses of stretchers with headers centered over stretchers, having both headers and stretchers in vertical alignment.

AMERICAN BOND is laid with stretchers throughout, except at every sixth course where headers or bond courses are introduced. The usual practice is to use all headers in these bond courses, but they may be laid with headers and stretchers alternating. This latter method is what is known as Flemish Header Course, and is used on the outer face of the wall so as to avoid the set dividing line of the all-header course. This, however, does not constitute as strong a bond, although it has a better appearance.

Other types of bonds, which are all variations of the three above mentioned, are *Running Bond* with blind joint headers, *Running Header Bond*, *English Cross Bond*, *Double Stretcher Flemish Bond*, *Flemish Cross Bond*, *Flemish Spiral Bond* and *Garden Wall Bond*.

MORTAR

Mortar must function in several ways. It must first hold the bricks apart and provide a uniform bearing for the units, and at the same time it must have the quality of holding the bricks together to form a cohesive, durable mass. It must fill all voids to exclude the elements and, also, it must have sufficient strength to resist the maximum load at the lowest mortar joint without distortion. The ease with which mortar can be handled is the greatest factor entering into the number of bricks which can be laid by a bricklayer in a day and, also, the ultimate cost.

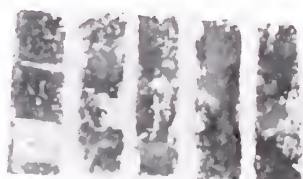
Mortar should be so proportioned that the right amount of plasticity is maintained for easily bedding and shoving the bricks to place without sacrificing the cohesive and adhesive qualities. Such a mortar, therefore, must have the proper proportions of lime, cement and sand, and the Port Costa Brick Company recom-

mends a mortar mix in the proportion of one part Portland cement, one part lime putty, and six parts well graded, clean mortar sand, as being capable of fulfilling all of the above requirements.

COHESIVE AND ADHESIVE QUALITIES OF A ONE, ONE, SIX MORTAR



The illustrations below show in a simple, conclusive manner the cohesive and adhesive qualities of a one, one, six mortar mix. An old brick smokestack was used as the ground work for this test. The brick were stiff-mud, wire-cut common brick, wet before laying into a beam at right angles to the stack. This beam was supported on trestles for 28 days. On removal of the trestle these



photographs were taken and show that the mortar bond was sufficiently strong to support the stress of a man's weight of 198 pounds.

Portco Hollow Tile

HOLLOW BUILDING TILE has such a wide variety of uses and so many outstanding advantages as a modern building material that its use is steadily increasing. The unusually high quality of the Port Costa shale deposit is utilized in the manufacture of PORTCO HOLLOW TILE which is now widely specified by leading architects.

Portco Hollow Tile provides easily-erected, enduring masonry construction at minimum initial cost and with a minimum of maintenance cost, since there is no depreciation of the material itself. While it has all the desirable features of brick—permanence, strength, fire-resistance—it has the added advantages of dead-air insulation (which is in itself of prime importance) and of substantial savings in labor costs. It provides lightness combined with surplus strength.

Since one Hollow Tile can equal from three to twenty-one brick (depending on its dimensions) it will be seen that it makes possible quicker construction. Portco Hollow Tile is procurable in a variety of carefully designed sizes and shapes to provide for all usual requirements.

The hard-burned material of which Portco Clay Products are made—similar in composition to the brick materials that have withstood the ravages of time and the elements for thousands of years—prevents absorption. Portco Hollow Tile makes dry walls and, for this reason, is widely used for cellars and residence foundations.

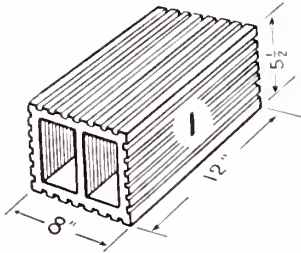
The most outstanding feature of Portco Hollow Tile is, of course, the insulation which ensures the highest obtainable degree of health and comfort since the dead air space in the center of a Hollow Tile wall neutralizes the effects of outside temperatures. Added to the non-leakage of a Hollow Tile wall and the insulation it provides, there is the further fact that no leakage can occur around door and window frames that are properly set.

There is a wide variety of standard shapes of Hollow Tile and all are available in Portco quality. In addition to the extensive range of sizes and shapes carefully planned to meet all conceivable requirements of the building trade, there is a full complement of special shapes for corners, starters, jambs, sills, etc.

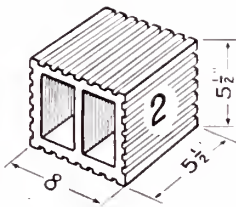
The same high standards of workmanship, the same quality of materials and the same attention to inspection that has made Portco Brick so much in demand are incorporated in every Portco Hollow Tile.

The following pages show the full range of Portco Hollow Tile in isometric drawings. Note that all tile shown is corrugated. Smooth face Portco Hollow Tile in all shapes and sizes may be obtained on order.

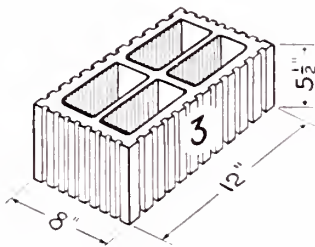
Sizes and Shapes of Portco Hollow Tile



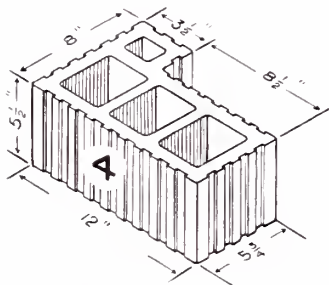
TILE NO. 1—8" wide, 5½" high and 12" long. This tile is for use in all 8" load-bearing or filler walls and for greater thicknesses of walls when used with other sizes of tile. Two pieces make a square foot of 8" wall.



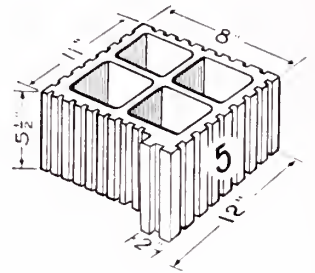
TILE NO. 2—8" wide, 5½" high and 5½" long. A load-bearing tile for working out ends and other places where half an 8" tile is needed. It is also used for closure tile where bond is broken.



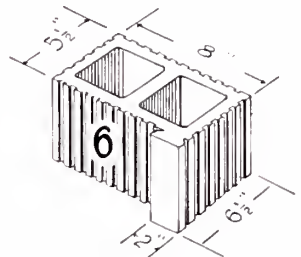
TILE NO. 3—8" wide, 5½" high and 12" long. This is a load-bearing tile used for a closure and is used with Tile No. 2 for breaking bond.



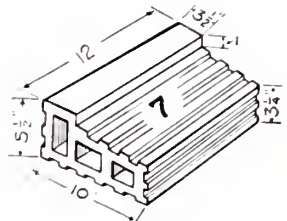
TILE NO. 4—A special 8" corner tile. The dimensions are shown on the illustration. This corner tile is more substantial and of stouter construction than block No. 10.



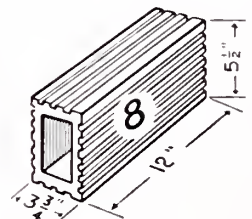
TILE NO. 5—An 8" jamb tile also known as full jamb tile. For use in 8" walls.



TILE NO. 6—An 8" half jamb tile used in 8" walls.

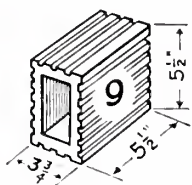


TILE NO. 7—A sill tile for 8" and 12" walls.

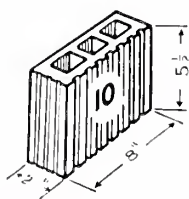


TILE NO. 8—3¾" wide, 5½" high and 12" long. This is known as a 4" building tile and is for load-bearing walls and backing purposes. It is used in conjunction with Tile No. 1 for 12" walls.

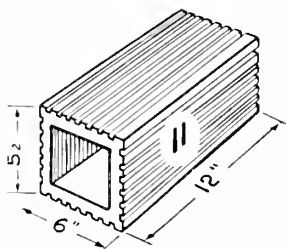
Sizes and Shapes of Portco Hollow Tile—Cont.



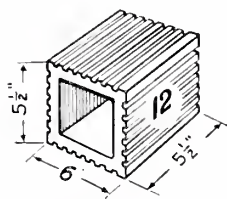
TILE No. 9— $9\frac{3}{4}$ " wide, $5\frac{1}{2}$ " high and $5\frac{1}{2}$ " long. For working out ends and closures in connection with Tile No. 8, as well as in 12" walls with Tile No. 1.



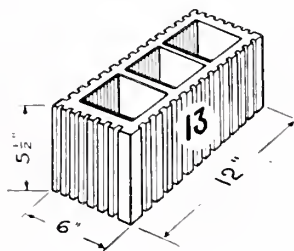
TILE No. 10—A corner tile. Can be used for corner construction in conjunction with tiles No. 1 and No. 8.



TILE No. 11—This is known as a bungalow tile for walls 6" thick or in multiples of 6". The webs are extra heavy for load-bearing purposes. Two pieces to the square foot of 6" wall.

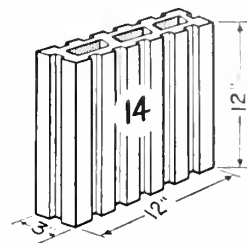


TILE No. 12—This is half of a regular 6" bungalow tile for use in breaking bonds and can also be used as a closure.

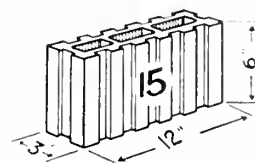


TILE No. 13—This is a corner block for 6" bungalow tile and also serves as a closure tile. This tile can also be used as a bonding tile in 12" walls built of two courses of bungalow tile.

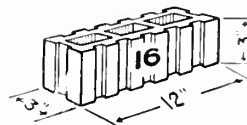
TILE No. 14—A partition tile for 3" partitions.



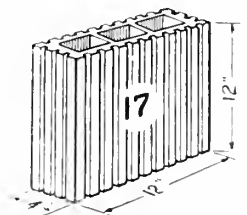
TILE No. 15—Half of a 3" partition tile.



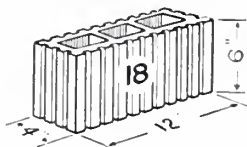
TILE No. 16—One-fourth of a 3" partition tile.



TILE No. 17—A partition tile for 4" partitions.



TILE No. 18—Half of a 4" partition tile.

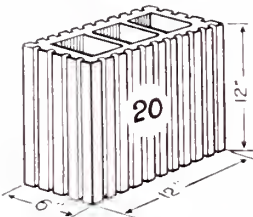
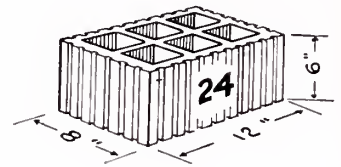


Sizes and Shapes of Portco Hollow Tile—Cont.



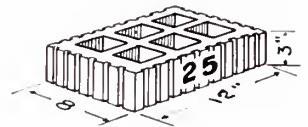
TILE No. 19—One-fourth of a 4" partition tile.

TILE No. 24—8" x 12" x 6"—One-half of an 8" partition or bearing tile.

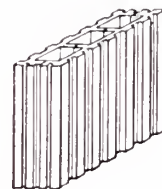


TILE No. 20—A partition tile for 6" partitions.

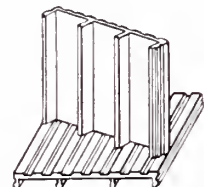
TILE No. 25—8" x 12" x 3"—One-fourth of an 8" partition or bearing tile.



FURRING TILE—Before dividing.

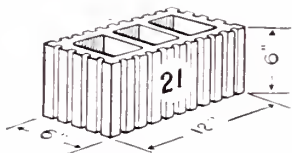


FURRING TILE—After dividing.



FURRING TILE split.

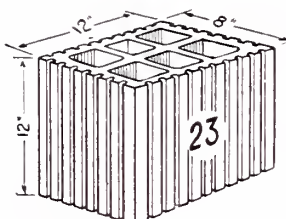
TILE No. 26—1 1/2" x 12" x 12"
TILE No. 27—2" x 12" x 12"



TILE No. 21—One-half of a 6" partition tile.



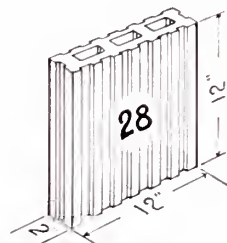
TILE No. 22—6" x 12" x 3"—One-fourth of a 6" partition tile.



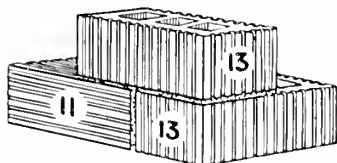
TILE No. 23—8" x 12" x 12"
For 8" partition. Can also be used for 8" bearing wall.

TILE No. 28 solid furring tile—2" x 12" x 12".

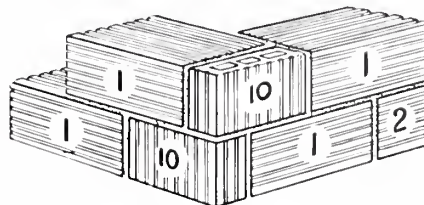
This tile serves three purposes—a partition tile, furring tile and column covering tile.



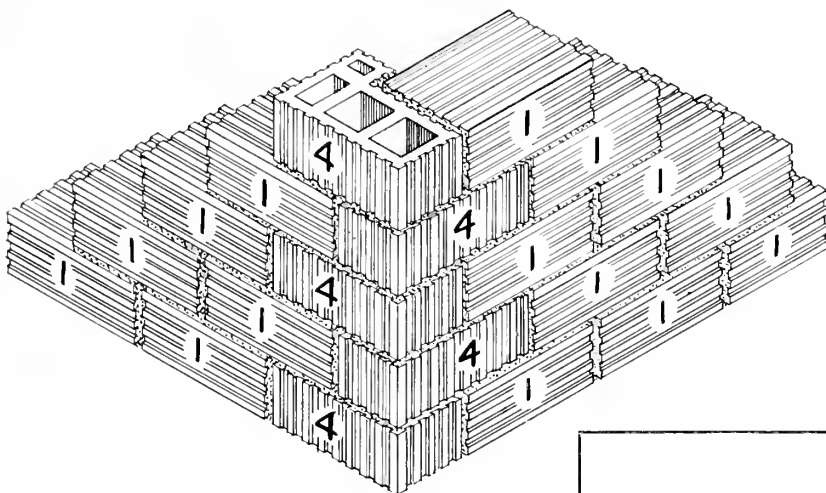
Details of Construction Hollow Building Tile



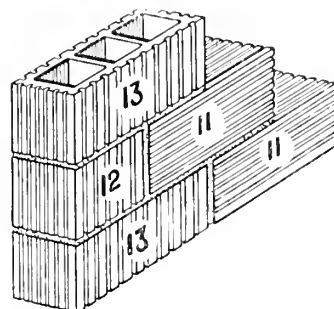
BUNGALOW TILE. Corner of 6" wall showing proper use of closure tile. No open ends exposed.



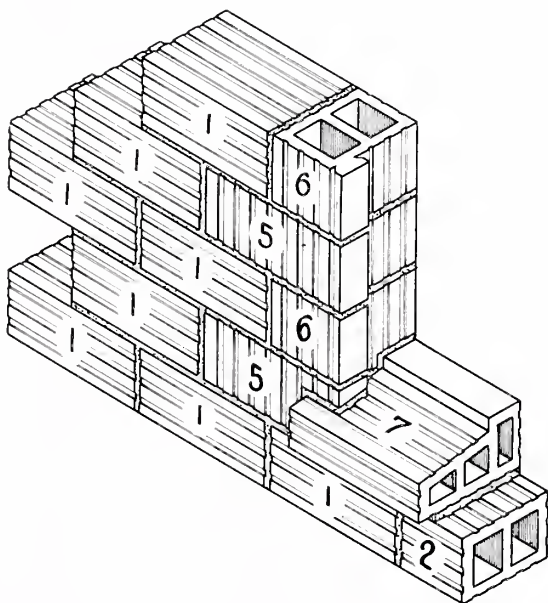
CORNER CONSTRUCTION 8" WALL, showing small corner tile.



CORNER CONSTRUCTION 8" WALL. Showing use of special corner tile No. 4.



JAMB CONSTRUCTION FOR 6" BUNGALOW TILE WALL. Door jamb in 6" wall showing method of using closure and half building tile in working up to openings.



WINDOW JAMB CONSTRUCTION IN 8" WALL. Detail of window jamb and sill showing the use of three special shapes, window jamb tile, half jamb tile and sill tile. These two diagrams show the importance of breaking joints half way making a 6" bond.

CHARLES MOSER
STANFORD UNIVERSITY
CALIFORNIA

January 26th, 1926.

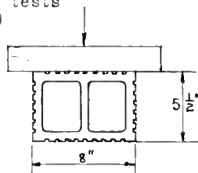
Results of tests on samples of Clay Building Tile submitted by PORT COSTA BRICK WORKS, 808 Sharon Building, San Francisco, California, Jan. 15, 1926.

Size of tile: $5\frac{1}{2}$ " x 8" x 12" : mean thickness of walls $\frac{3}{4}$ ".

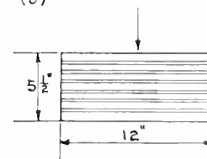
No.	Compression Lb.--Ult.	Bending Lb.--Ult.	Absorption %
1.	197,200		7.3
2.	228,000		7.4
3.		7,300	
4.		4,000	
Average per sq. inch In compression 2214 lbs.			

Absorption determined by drying to constant weight and then immersing in boiling water for five hours.

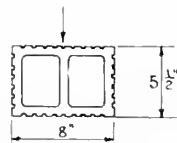
Compression tests
(1 and 2)



Bending test
(3)



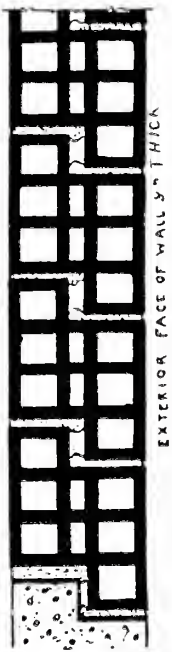
Bending test
(4)



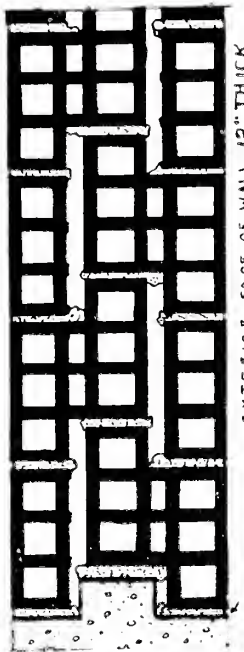
(SIGNED) *Charles Moser*

DETAILS OF CONSTRUCTION
and General Information Pertaining to
UNIVERSAL UNIT TILE

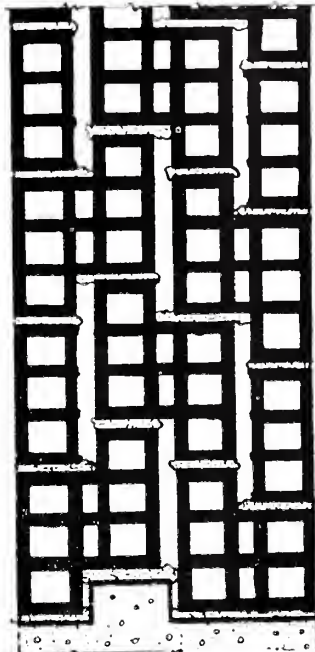




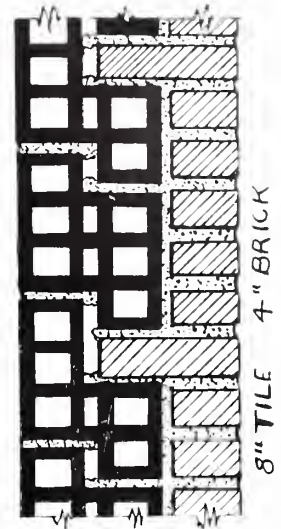
EXTERIOR FACE OF WALL 3" THICK



EXTERIOR FACE OF WALL 12" THICK

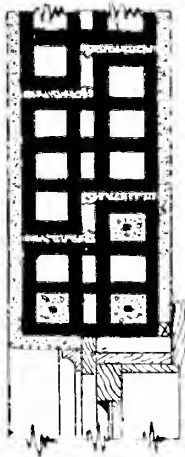


EXTERIOR FACE OF WALL 16" THICK

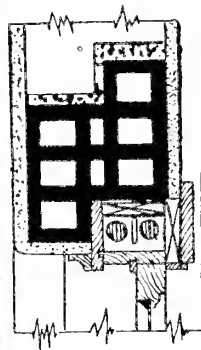


8" TILE 4" BRICK

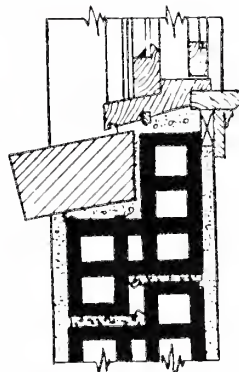
Tile perfectly adapted to brick veneer work - bonding every 3rd-6th or 9th course.



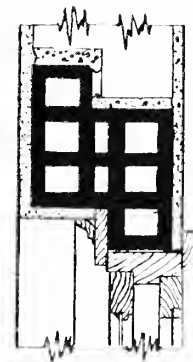
HEAD



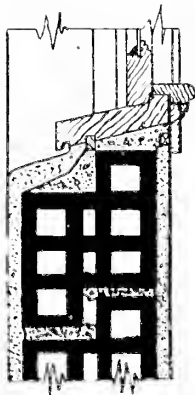
JAMB



BRICK SILL DETAIL



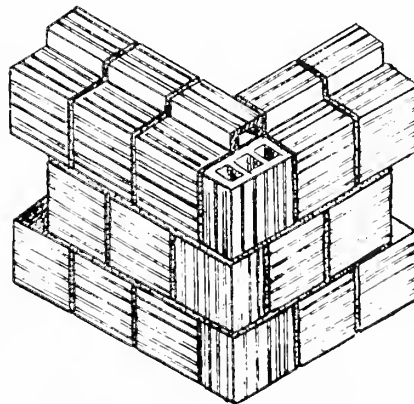
JAMB



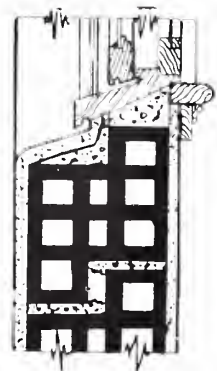
SILL

DOUBLE HUNG WINDOW DETAILS

- The one unit •
- forms them all •



• CORNER DETAIL •
Note simplicity, strength & perfect bond

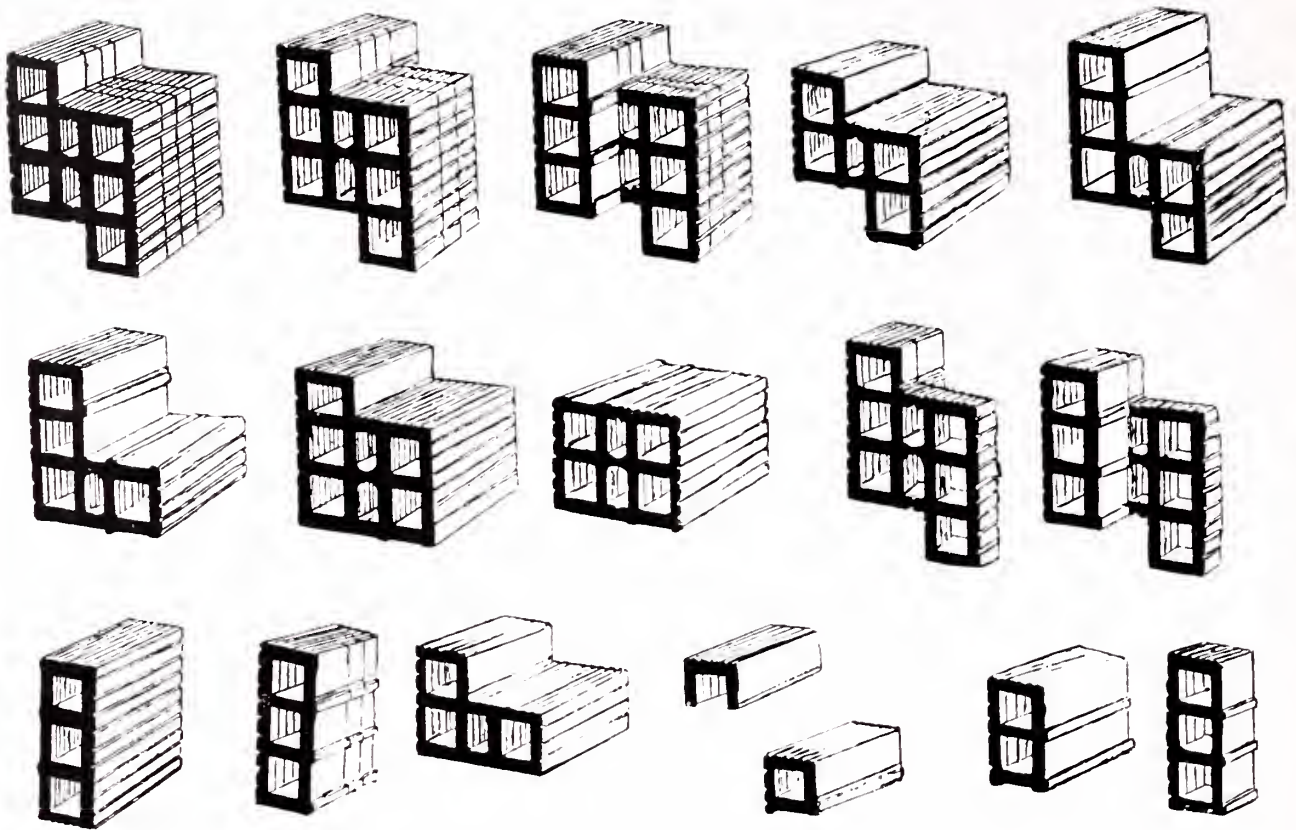


SILL

CASEMENT WINDOW DETAILS

Note the interlocking bond around openings.

A Few Shapes into which the Universal Unit Tile can Readily be Cut



FACTS AND FIGURES

One size and shape only for all standard thicknesses of walls and details of construction.

Face size of each unit $8\frac{1}{2}$ " long by $8\frac{1}{2}$ " high by 8" in thickness.

Two units lay a face foot of 8" wall exclusive of mortar.

Three units lay a face foot of wall 13 " in thickness exclusive of mortar.

Four are required for a 17 " wall, etc.

A proportion of the units are scored vertically so they can readily be broken into thirds and halves or certain special shapes for starting jambs, receiving floor joists, providing chases for pipes, etc. If they are not needed for this purpose they can be used as whole tile.

The tile and sections interlock and interbond around openings, etc. No ties or bonding metal required.

UNIVERSAL UNIT TILE are much stronger than other types of hollow tile, because all webs are always in line and are very short.

The tile forms a superior foundation for stucco, they bond perfectly with brick veneer, or they can be supplied smooth or in a variety of surfaces as exterior or interior finish. Many interesting exterior effects can be secured by combining brick with tile.

Made only in one size and one shape.

Units can readily be broken with a trowel into every shape required for building.

The lap-joint is the only waterproof joint. The **UNIVERSAL UNIT** is the only practical lap-joint tile ever devised.

It possesses all the advantages of other types of hollow tile, with the complications eliminated.

Cheap enough for a cottage; strong enough for a warehouse.

Approved and endorsed by Engineers, Contractors, Building Inspectors and Masons wherever it has been used or demonstrated.



Exclusive Features of The Universal Unit

One size and one shape only for all thicknesses of walls and details of construction.

The only tile that can be cut into brick sizes with a trowel for any shape required in any building operation.

The only tile that positively prevents frost and dampness being carried through the walls.

The simplest form of interlocking tile—and it really interlocks.

The double horizontal mortar beds, offset and lower on exterior side of wall, provides the best form of fireproof construction.

Forms perfect bond at openings between jambs and wall tiles.

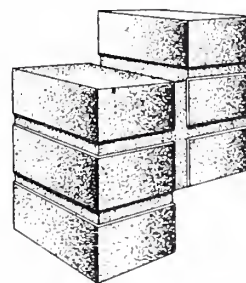
The easiest tile to lay. It can be handled and placed with one hand.

Complies with all building ordinances for load-bearing walls wherever tile for this purpose is permitted.

Quantity calculations the simplest of *any* type of hollow building tile.

Builds the simplest, lightest, quickest and cheapest load-bearing and interlocking walls, of any required thickness.

One Universal Unit Tile
lays the equivalent of
six brick with mortar joint





Entrance View, Residence D. S. Brooks, San Francisco, California, Showing how Brooks Faced Hollow Tile lends itself to this picturesque setting

H. H. Gutterson, Architect

Brooks Faced Hollow Tile

Requires no Stucco or Plaster

BROOKS FACED HOLLOW TILE may well be called a building material de luxe. While it has all the advantages of Portco Hollow Tile, it has the added features of a hand-finished ornamental surface and a richness and delicacy of coloring which provide a degree of artistry, in both interior as well as exterior walls, that has never before been possible in a material of similar strength and permanence.

The surface finish of Brooks Faced Hollow Tile closely resembles that of the stone of which the world-famous Kennilworth Castle in England is built. In combination with the remarkable richness of coloring, made possible by skillful firing and the peculiar qualities of the Port Costa shale deposit materials, the inherent beauty of this finish has given Brooks Faced Tile a wide vogue wherever the ultimate in artistic effect is desired.

In addition to its extensive use as a masonry wall for the exterior of all buildings where appearance is a chief consideration, Brooks Faced Hollow Tile is also the final selection for many interiors. As a background for pictures and because of its unequalled harmony with the period architectural effects and period furniture



Kenilworth Castle, Warwickshire, England



H. H. Gutterson, Architect

Delightful Interior, Residence of D. S. Brooks, San Francisco, California



Judge Beasley's Residence, Claremont, California. Built of Brooks Faced Hollow Tile

Williams & Wastell, Architects

now so much desired, its sheer beauty is unsurpassed. Not the least of the charm that it lends to an interior is an added touch of distinction—a long-sought freedom from the conventionality of the usual plaster with wallpaper or paint. A wall of Brooks Faced Tile completely meets all the canons of good taste and satisfies the natural desire, among discerning people, for the uncommon. The wall itself has become a most modern and much sought-for wall *finish*.

Brooks Faced Hollow Tile is not limited to any one style of architecture. It lends its attractiveness and durability equally well to both bungalow and skyscraper.

In many cases, Brooks Faced Hollow Tile enables an owner to secure a completely enduring and fireproof structure for less than if a stuccoed frame were used because the initial cost of a surface finishing as well as its future maintenance cost are eliminated. There is never any depreciation of the material itself. It never requires painting and it eliminates—forever—the repairs continually necessitated by plastered walls. The fire-hardened surface of Brooks Tile makes it especially desirable for halls and lobbies in public buildings where great wear occurs. The only cleaning that is necessary can be done with a soft broom.

An additional convenience is provided by Brooks Faced Channel Tile which enables gas and water pipes and electric conduits to be concealed within the walls



*Exterior View H. B. Pasmore Studio, Berkeley,
California*

Louis M. Upton, Architect



*Entrance View H. B. Pasmore Studio, Berkeley,
California*

Louis M. Upton, Architect

of the building, which eliminates the extra expense of making unsightly patches. There is also available a Combination Jamb and Corner Tile which makes it possible to have all corners maintain the regular size and shape of tile units that are used throughout the wall and still produce perfect joints.

Horizontal air spaces, which confine the air in the walls at practically the same uniform temperature at the floor level as at the ceiling, ensure proper insulation which, in turn, effects marked savings in fuel cost.

While the actual photographs reproduced on these pages give some suggestion of the pleasing effects that are possible with Brooks Faced Hollow Tile, it really must be seen in a wall to be fully appreciated. Possibly the best evidence of its all-round superiority as an artistic building material is the steadily increasing large number of modern but economically-built buildings in which it is being used with complete and lasting satisfaction.

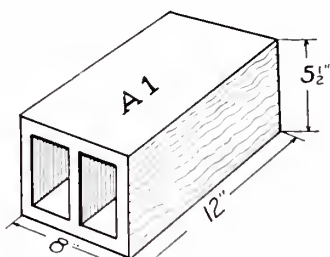


Louis M. Upton, Architect

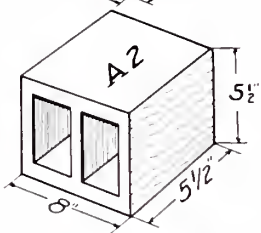
Interior H. B. Pasmore Studio, Berkeley, California
Note the unequalled harmony of the Brooks Faced Tile wall surfaces

Sizes and Shapes of Brooks Faced Hollow Tile

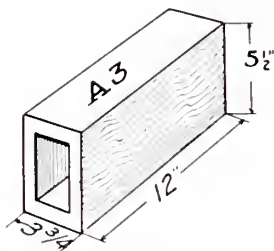
TILE No. A 1
Load-bearing tile for 8" wall.



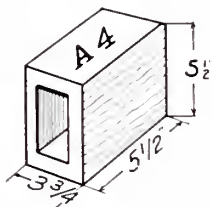
TILE No. A 2
Load-bearing tile for 8" wall.



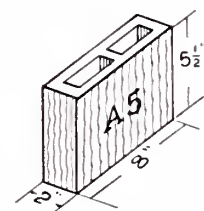
TILE No. A 3
Used with A 1 and A 2 for 12 1/2" wall and for partitions.



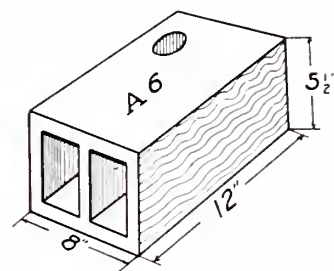
TILE No. A 4
Used with A 1 and A 2 for 12 1/2" wall and for partitions.



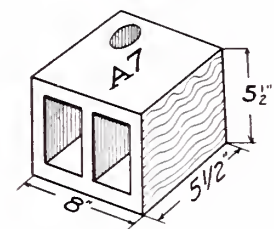
TILE No. A 5
Closer and filler to correct bond, etc.



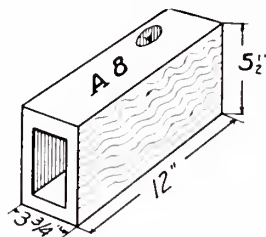
TILE No. A 6
Channel tile for vertical pipe and conduit.



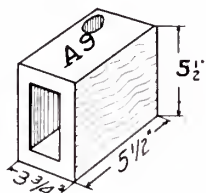
TILE No. A 7
Channel tile for vertical pipe and conduit.



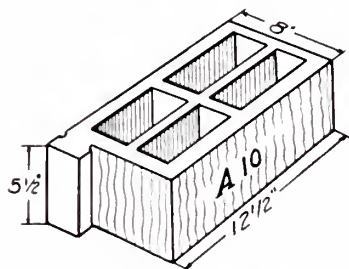
TILE No. A 8
Channel tile for vertical pipe and conduit.



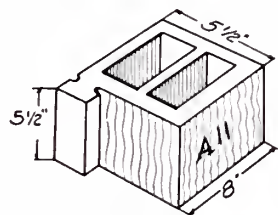
TILE No. A 9
Channel tile for vertical pipe and conduit.



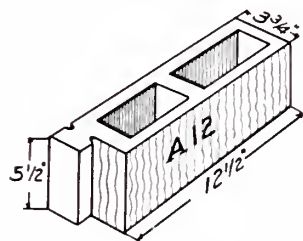
TILE No. A 10
Combination jamb, corner and closer for wood sash and doors. Grooved lug chips off with trowel when used as corner or closer.



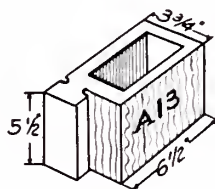
TILE No. A 11
Combination jamb, corner and closer for wood sash and doors. Grooved lug chips off with trowel when used as corner or closer.



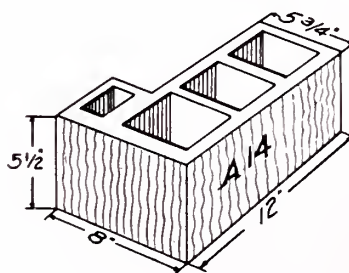
TILE No. A 12
Combination jamb, corner and closer for wood sash and doors. Grooved lug chips off with trowel when used as corner or closer.



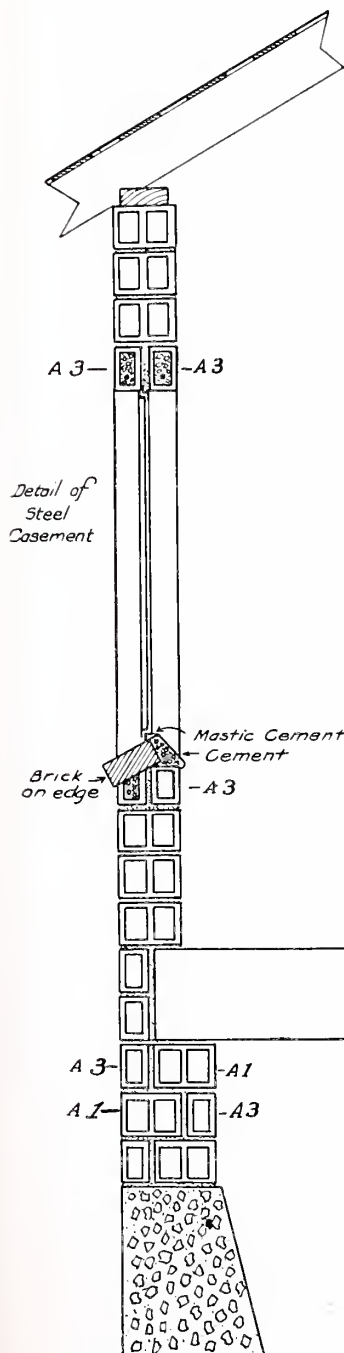
TILE No. A 13
Combination jamb, corner and closer for wood sash and doors. Grooved lug chips off with trowel when used as corner or closer.



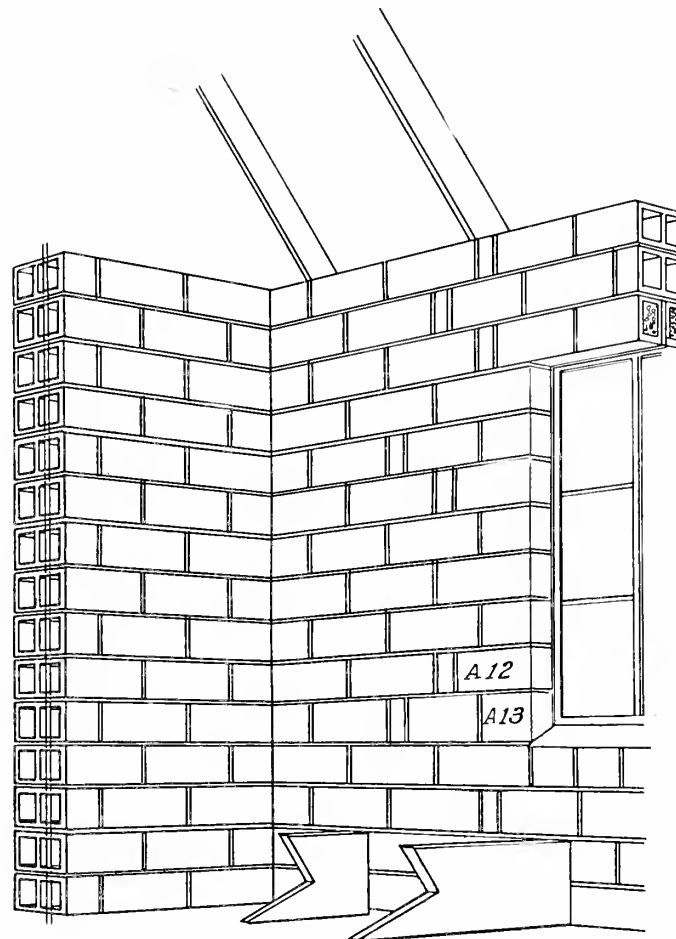
TILE No. A 14
8" corner only.



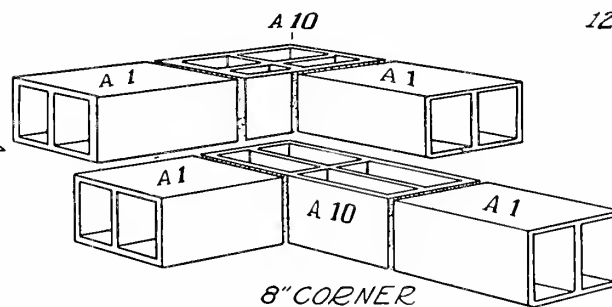
Construction Detail Brooks Faced Hollow Tile



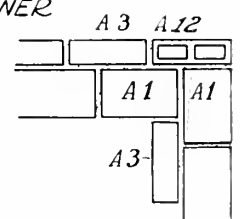
Wall Detail Showing 12½" and 8" Construction



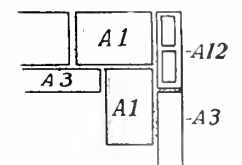
Wood Casement Detail



12" CORNER



1" 3", 5" Courses Etc.



2nd, 4th, Courses Etc

In Conclusion . . .

IT is earnestly hoped that the information presented in this book will be of genuine assistance to everyone interested in the durability, beauty and final economy that is made possible by the use of Portco Clay Products.

The Port Costa Brick Works stands squarely behind all its products and is keenly interested in co-operating, as far as is possible, with architects, owners and builders to the end that the fullest measure of lasting satisfaction may be secured.

Everyone interested is invited to ask for any further information they may wish to have at any time regarding Brick and Hollow Tile in general and Portco Clay Products in particular.

A FEW NOTEWORTHY BUILDINGS IN WHICH PORTCO CLAY PRODUCTS ARE USED

PACIFIC TELEPHONE & TELEGRAPH CO. BUILDING, San Francisco, Calif. Miller & Pflueger, Architects, Lindgren & Swinerton, General Contractors.

PACIFIC TELEPHONE & TELEGRAPH CO. BUILDING, Bush Street, San Francisco. Bliss & Faville, Architects, Dinwiddie Construction Co., General Contractors.

HEBREW HOME AND HOSPITAL FOR AGED DISABLED, San Francisco, Calif. Samuel Lightner Hyman, Architect, Reed and Reed, Mason Contractors.

MEDICO DENTAL BUILDING, San Francisco, Calif. Geo. W. Kelham, Architect, Geo. Wagner, Inc., General Contractor.

HARTFORD FIRE INSURANCE CO. BUILDING, San Francisco, Calif. Bakewell & Brown, Architects, Dinwiddie Construction Co., General Contractors.

CENTRAL NATIONAL BANK BUILDING, Oakland, Calif. Geo. W. Kelham, Architect, Walter J. Matthews, Associate Architect, Dinwiddie Construction Co., General Contractors.

MASONIC HOME, Decoto, Calif. Wm. Mooser, Architect, Larsen & Larsen, Mason Contractors.

KAPPA SIGMA FRATERNITY HOUSE, Berkeley, Calif. C. C. Dakin, Architect, Joe Devillers, Mason Contractor.

CITY AND COUNTY HOSPITAL, Tubercular Ward, San Francisco, Calif. Herman Barth, Architect, Emil Hogberg, Mason Contractor.

JEFFERSON SCHOOL, San Francisco, Calif. J. R. Miller, Architect, Mealey & Collins, Mason Contractors.

HARRISON STREET SCHOOL, San Francisco, California. John Reid, Jr., Architect, Emil Hogberg, Mason Contractor.

SOUTHERN PACIFIC DEPOT, Sacramento, Calif. J. H. Christie, Architect, Larsen & Larsen, Mason Contractors.



The Port Costa Brick Works

SAN FRANCISCO, CALIFORNIA

